

## Claims

We claim

1 1. A multi-user collaborative graphical user interface for displaying items,  
2 comprising;

3 a display area having a horizontal orientation, the display surface  
4 positioned between the multiple users, the display area having a centroid  
5 and a circumference;

6 a plurality of work areas partitioned from the display area, there being  
7 one working area for each user of the multiple users; and  
8 means for orienting a displayed item in a particular working area  
9 using a global polar coordinate system centered on the centroid.

1 2. The interface of claim 1, further comprising:

2 means for selecting a control point for a particular displayed item;  
3 and

4 means for orienting the displayed item in the particular working area  
5 using a local polar coordinate system centered on the a control point.

1 3. The interface of claim 1, further comprising:

2 means for displaying a control panel in each work areas, there being  
3 one control panel for each of the plurality of users; and  
4 means for orienting the control panel in the particular working area  
5 using the global polar coordinate system centered on the centroid.

- 1 4. The interface of claim 1, in which the display area is circular.
- 1 5. The interface of claim 1, in which the display area is rectangular.
- 1 6. The interface of claim 1, in which the control panel only controls items  
2 displayed in the corresponding work area.
- 1 7. The interface of claim 1, in which the item includes a title, a hyperlink,  
2 and an image.
- 1 8. The interface of claim 1, in which a corner of the item includes a resize  
2 area, and wherein a resizing scale factor is based on a distance from the  
3 resizing area to the control point.
- 1 9. The interface of claim 1, in which the display area is partitioned by radii  
2 extending from a centroid of the work area to a perimeter of the work area.
- 1 10. The interface of claim 1, in which each work area has associated  
2 appearance attributes.
- 1 11. The interface of claim 1, in which each work area has associated  
2 operation attributes.